

# Geometry Unit 7 Review

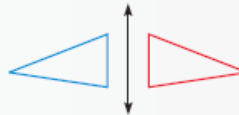
1. What is your name?

7.1

## RIGID MOTION IN A PLANE

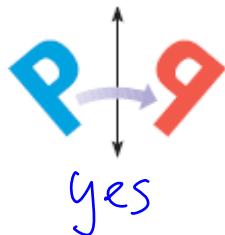
Examples on  
pp. 396–398

**EXAMPLE** The blue triangle is reflected to produce the congruent red triangle, so the transformation is an isometry.

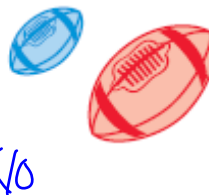


Does the transformation appear to be an isometry? Explain.

2.



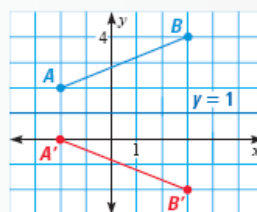
3.



4.

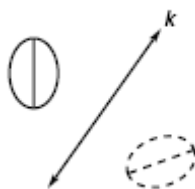


**EXAMPLE** In the diagram,  $\overline{AB}$  is reflected in the line  $y = 1$ , so  $\overline{A'B'}$  has endpoints  $A'(-2, 0)$  and  $B'(3, -2)$ .

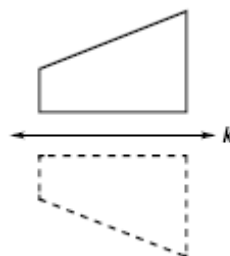


Sketch the reflection.

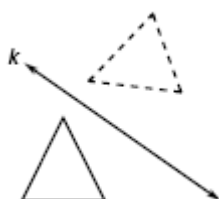
5.



6.



7.



8. Which direction (clockwise or counterclockwise) is a rotation of  $60^\circ$ ?

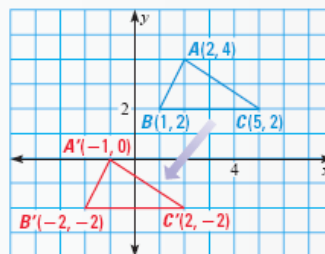
Counterclockwise



**EXAMPLE**

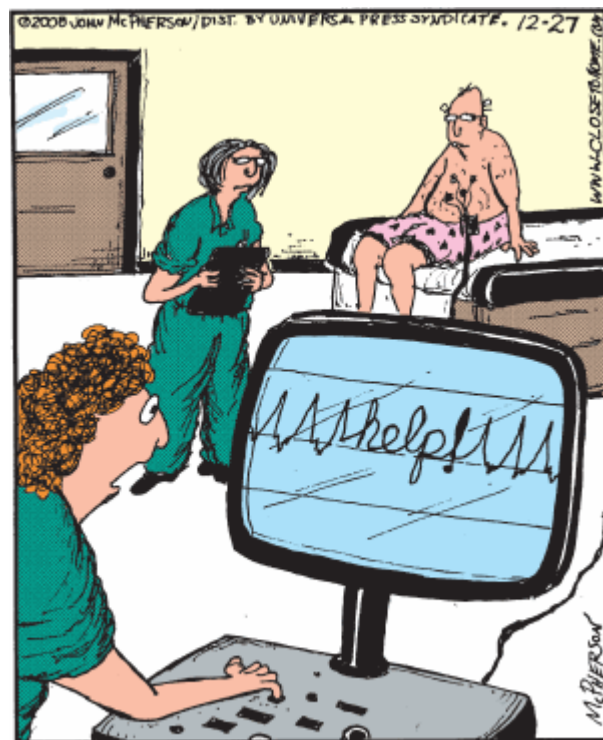
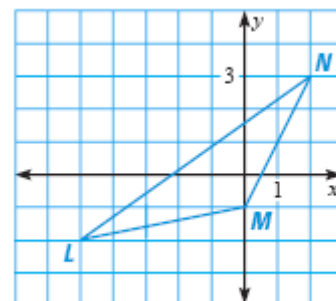
Using the vector  $\langle -3, -4 \rangle$ ,  $\triangle ABC$  can be translated to  $\triangle A'B'C'$ .

$A(2, 4)$	$A'(-1, 0)$
$B(1, 2)$	$B'(-2, -2)$
$C(5, 2)$	$C'(2, -2)$



9. The vertices of the image of  $\triangle LMN$  after a translation are given. Choose the vector that describes the translation.

<u>C</u>	$L'(-1, -3), M'(4, -2), N'(6, 2)$	A. $\overline{PQ} = \langle 0, 3 \rangle$
<u>A</u>	$L'(-5, 1), M'(0, 2), N'(2, 6)$	B. $\overline{PQ} = \langle -2, 5 \rangle$
<u>D</u>	$L'(-3, 2), M'(2, 3), N'(4, 7)$	C. $\overline{PQ} = \langle 4, -1 \rangle$
<u>B</u>	$L'(-7, 3), M'(-2, 4), N'(0, 8)$	D. $\overline{PQ} = \langle 2, 4 \rangle$



"Hey, Lori! Take a look at Mr. Geckler's EKG!"

# Geometry Unit 7 Review

7.5

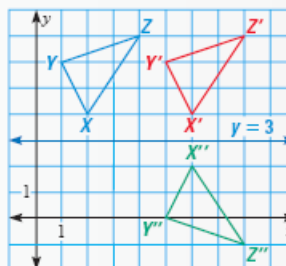
## GLIDE REFLECTIONS AND COMPOSITIONS

Examples on  
pp. 430-432

**EXAMPLE** The diagram shows the image of  $\triangle XYZ$  after a glide reflection.

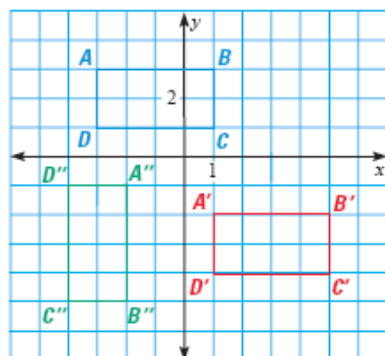
Translation:  $(x, y) \rightarrow (x + 4, y)$

Reflection: in the line  $y = 3$



Describe the composition of the transformations.

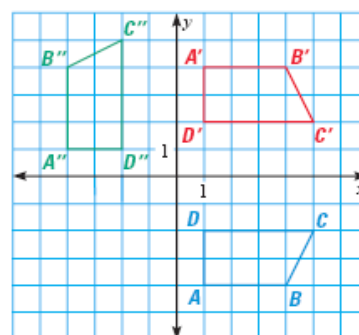
10.



$(x, y) \rightarrow (x+4, y-5)$   
Rotation:  $-90^\circ$

Translation

11.



Reflection  $x$ -axis  
Rotation:  $90^\circ$

